Release Notes -ADS 2009 Update 1 Hotfix (351.526)

Release 12 August 2011

Name

hotfix_20110627_ads2009u1

Version

351.526

Platform Support

Windows and Linux only.

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Description

This hotfix addresses various issues of ADS 2009 Update 1 in the areas including Simulation, Momentum, Desktop LVS, Licensing, DDS and Design environment.

Simulation issues addressed

EDA00221800 -Sa=0 is supported in BSIM models.
EDA00225430 -HB analysis convergence issue with BSIMSOI models is addressed.
EDA00221231 -Correct DC simulation results will be generated while using X-parameter models obtained from an NVNA.
EDA00222280 -Error with HSPICE .SETSOA option is removed.
EDA00222282 -HSPICE syntax: Single backslashes in strings are handled properly.
EDA00221756 -Simulation gets completed successfully even if the design consists of a shorted voltage source of 0 volts.
EDA00221883 -Gain problem with FFE implementation in channel simulator adaptive equalization in addressed.
EDA00220267 -BSIMSOI 4.3 model is supported.
EDA00219998 -Swept Ptolemy simulation using Fast Cosim will generate behavioral model only once.
EDA00221153 -ADS results with BSIMSOI models are corrected.
EDA00221587 -Nominal value of optimization enabled variable changed, even when variable marked as "noopt".
EDA00221176 -Performance issues with Ptolemy circuit cosimulation are addressed.
EDA00223220 -Memory leak issue when processing custom functions on schematic is addressed.
EDA00220182 -RFDE support for IC 6.1.4 is added.
EDA00204760 -In the envelope simulation involving MLIN components, calculation of DC leak currents is corrected.
EDA00220533 -Simulations involving user compiled models (UCM) will run properly even in the presence of 3rd party software.
EDA00220095 -"Negative pclm" errors in transient simulations involving HSPICE files from TSMC kit are corrected.
EDA00220224 -Optimization Cockpit allows load of pre-defined tune variables into tune window.
EDA00219468 -X-parameter generation issue with Spectre Netlist is addressed.
EDA00219186 -Removes the premature channel characterization in channel simulator.
EDA00219224 -"Nbv" parameter of diode model is handled correctly in HSPICE compatibility mode.
EDA00219254 -IBIS components: A new parameter "InterpMode" has been added to all IBIS components in order to facilitate user's control of the interpolation technique applied to the IBIS tabular data. The UI has not been modified for the hotfix and, therefore, the following use model is applicable.

1. Select the Display tab of the IBIS component dialog.

2. Select the "Other" parameter to be displayed in the schematic. Click OK.

3. On the schematic window, edit the parameter value field by specifying the new parameter "InterpMode" followed by the equality sign and the desired value for the parameter.

4. The available options include "linear", "cubic" and "spline", specified as a quoted string.
   For example, the "Other" parameter may look like: Other=InterpMode="linear".

EDA00199985 -"hcomp" parameter in diode model is recognized.

EDA00208040 -Issue related to the disappearance of ADS Dynamic Link and RFDE menus is addressed.
EDA00207937 -HSPICE Compatibility Wizard is enhanced to import encrypted netlists.
EDA00219332 -Crash due to Encrypted HSPICE with all DC sources is removed.
EDA00205206 -Assertion error while running encrypted hspice simulation is removed.
EDA00207588 -W-element models import speed using HSPICE Compatability Component Wizard is improved.
EDA00219873 -Following components from "Sources-Time Domain" palette are supported for Encrypted HSPICE simulation: V_DC, I_DC, VtStep, ItStep, VtPulse, ItPulse, VtPWL, ItPWL, VtExp, ItExp, VtSine, ItSine, VtSFFM, ItSFFM, VtBitSeq, Vt_LFSR_DT
Following components are unsupported: VtUserDef, ItUserDef, VtDataset, ItDataset, VtPulseDT, VtImpulseDT, VtRetrig, VtOneShot ClockWjitter VtPRBS.
EDA00219794 -Importing non-encrypted HSPICE subcircuit for use in Encrypted HSPICE simulation is supported.
EDA00205851 and EDA00205890 -Infrastructure is added to support multi-colored Load Pull plots.
EDA00220484 - When the design has SP_Probe, saving DCOP will crash the simulator
EDA00227152 - Memory leak associated with Tune, Noise and SP probes.
EDA00225661 - Optimization fails with second goal that uses SP_Probe and noise parameters
EDA00225660 - Optimization with SP_Probes causes hpeesofsim.exe to take about 1.3 Gbytes of RAM
EDA00225555 - Some noise parameters don't appear when tuning schematic with SP_Probe component
EDA00222344 - Optimization Initial EF is not the same for ADS 2008 U1 and ADS 2009 U1.
EDA00223937 - ADS crashes during optimization useage
EDA00207328 - ADS Crashes when we close the layout window and optimization cockpit during optimization
EDA00219995 - Running an optimization sometimes leads to mixed-unit optimization value update, and as a result failure to generate layout.
EDA00229179 - I_NoiseBD source produces <NaN>
EDA00227893 - DC Annotation values do not match with the branch currents detected by current probes
EDA00222528 - BatchSimulation with Eye Probes causes a crash in this design
EDA00229249 - Incorrect topology description for GaAs device
EDA00231650 - S-Parameter simulation speed is slow when compare to Spectre's SP analysis.
EDA00227893 - DC Annotation values do not match with the branch currents detected by current probes
EDA00222528 - BatchSimulation with Eye Probes causes a crash in this design

Momentum issues addressed

EDA00222410 -Momentum simulations will be successful even if different edge mesh options are set on different layers.
EDA00222653 -Updated link to Allegro (ial) is included.
EDA00221701 -Momentum problem with structure in box is addressed.
EDA00222773 -In Momentum Microwave mode, simulation results will be proper even if the design consists of long and thin striplines.
EDA00206724 -Advanced Model Composer issue related to the discrete list of parameters is addressed.
EDA00222421 -Text is preserved while placing parameterized layout components.
EDA00222446 -Momentum simulator re-runs in the case of multiple momentum layout component instances are prevented.
EDA00220023 -If customer setup has a very large number of queues in LSF environment (>30), Momentum distributed simulation used to hang in some cases and this issue is addressed.
EDA00222195 -Momentum Turbo simulations used to hang in some cases and that is addressed.
EDA00220227 -Svensson/Djordjevic Substrate Loss Model is now Available With Momentum. For more information, please see the section Details of Svensson/Djordjevic Substrate Loss Model in Momentum
EDA00226264 - Momentum segmentation violation with 64 core machine.
EDA00222108 - substrrate CMOS32 ST not converging in uW.
EDA00237737 - Layout-lookalike symbol generation error causes corruption of ADS

Licensing issues addressed

EDA00222030 -Flexnet version is upgraded to 11.6.1.

EDA00206396 -Single ADS instance checks out single b_core license only.

EDA00207841 -Issues with extended license search are addressed.

EDA00219568 -Starting up ADS won't slow down even when inactive license hosts are included in the registry.

EDA00230773 - ADS 2009 Update 1 failed to run if hot-fix 518 was installed and ADS 2011.01 was also installed

EDA00234289 - ADS 2009U1 + 520 Hotfix will not pull e_sim_fem when fem analysis is attempted inside ADS, works in 2009U1 base.

EDA00235752 - License Database (LDB) definition is not up-to-date and there are differences compared to LTS

EDA00236295 - Momentum virtuoso does not run with ST special bundle on 370.601 hotfix

Instrument links issues addressed

EDA00220522 -Crash upon hitting "Measure" button in Connection Manager Client is addressed.

IC Design Flow issues addressed

EDA00221220 -Gerber import is corrected to properly deal with circular commands G02 and G03.

EDA00220496 -DRC now supports physical layer ID's greater than 255 and upto 1023.

EDA00220906 -RFIP Encoder now supports encoding of the hierarchial HSPICE netlists.

EDA00207736 -Nodal Mismatch can identify the component which are placed reversely or not in order. Following issues related to ADS desktop LVS tool are addressed.

EDA00207618 -Parameter mismatch show zero when errors do exist.

EDA00207619 -Results confused if component IDs not in sync.

EDA00220604 -Nodal mismatch errors are treated as parameter errors when any of the component parameters are modified.

EDA00220598 -Nodal Mismatches reports error if components in the sync design are interchanged

EDA00220230 -Information on parameter mismatches when errors are down inside the hierarchy.

EDA00220597 -ADS desktop LVS: LVS tool corrects wrong component count report.

EDA00219996 - Running DRC and editing can cause PDE to later crash

EDA00225960 - Layout crash after running DRC's and editing.

EDA00225967 - ADS Crash while using 'undo' in layout.

EDA00235259 - DXF file cannot be imported properly with the ADS 2009 Update1 when hot fix is installed.

EDA00237933 - Distance between objects is 10 times smaller after DXF import.

PDE issues addressed

EDA00206344 -Layout > show equivalent node" command from the schematic applied on net named "GND" will work correctly.

EDA00221350 -Component highlight works correctly when using edit-in-place.

EDA00222065 -Random/inconsistent issue related to the hanging of ADS 2009U1 main window/schematic after the completion of the simulation is resolved.

EDA00220593 -ADS hang while using "moving reference" command after flattening hierarchical Blocks is removed.

EDA00208012 -"Edit > Properties" dialog in the layout window appears quickly. Prior to this hotfix, this dialog used to come up slowly for big designs.

EDA00219941 -If two or more layout windows are open, select/deselect highlighting works properly.

EDA00219937 -If large number of library components is present, second time opening of the library browser comes up very quickly.

EDA00207726 -GEMX errors while generating AMC (Advanced Model Composer) models are removed. Now, AMC models can be generated successfully.

EDA00225978 - ADS Crash - disappeared without any error msg - pasted item within itself.

EDA00225979 - ADS lock up while zooming or drawing an ARC.

EDA00220640 - drawing format selected when trying to on screen edit a component inside of the drawing foramt outline.

EDA00235122 - ADS crashes during GDS2 export of design. Prevents Triquint from tapeout

Data Display issues addressed

EDA00221156 -Memory leak with Data display server(hpeesofdds) is addressed.

EDA00219363 -Zoom-in/Zoom-out delay problem in data display when using manual scale is fixed.

EDA00205544 - GoldenGateTools: Combo license never released after DDS brougt up.

EDA00232702 - GG Tools dds will pull a license when the ADE is started instead of when the dds window is opened.

Miscellaneous issues addressed

EDA00208048 -Without this hotfix, on Novell SUSE 9 based machines, after exiting ADS, processes like hpeesofde, hpeesofdds were still running. This caused license locking. After installing this hotfix, this problem is removed i.e. all ADS related processes will close immediately after exiting ADS. So this hotfix helps in preventing license locking.

Should create an example using SP_Probes in a multi-stage amplifier design

EDA00203815 - Should create an example using SP_Probes in a multi-stage amplifier design

EDA00234449 - unable to use VSA to demodulate the 1xEV_RevSrc signal source

EDA00237782 - Hot-fix installer supports a different location than where the original ADS is installed.

EDA00236562 - Add support for minidumps on the Windows and Linux platforms.

Details of Svensson/Djordjevic Substrate Loss Model in Momentum

Substrate loss is traditionally modeled by the frequency independent imaginary part of the permittivity, often specified via the loss tangent (TanD) parameter. This frequency independent permittivity is one of the sources of non-causal time domain responses. It has been demonstrated that the real part and the imaginary part of the complex permittivity must satisfy certain constraints to preserve causality. The Svensson/Djordjevic substrate loss model fulfills this causality requirement.

This hotfix embeds a new Momentum simulation engine that supports the Svensson/Djordjevic substrate loss model. Momentum configuration file variables are needed to activate the new model. Selecting the new model from the graphical user interface will be available with the next ADS release.

Following Momentum configuration variables control the model:

Configuration Variable Name	Default Value	Description
LTD_USE_DJORDJEVIC	0	1 = Svensson/Djordjevic model, 0 = frequency independent model.
LTD_USE_DJORDJEVIC_VALUEFREQ	1GHz	This is the frequency, in Hz, at which the permittivity value (complex or TanD) is specified.

These are global settings that will be used for all dielectrics with a loss specified by a non-zero imaginary part of the permittivity (or loss tangent). Optionally, one can influence the model's low and high roll-off frequencies.

Configuration Variable Name	Default Value	Description
LTD_USE_DJORDJEVIC_LOWFREQ	1kHz	Low roll-off frequency, in Hz.
LTD_USE_DJORDJEVIC_HIGHFREQ	1THz	High roll-off frequency, in Hz.

Add the above variables to a Momentum configuration file (momentum.cfg) in either one of the following locations:

<ads_project_directory>/momentum.cfg
$HOME/hpeesof/config/momentum.cfg
$HPEESOF_DIR/custom/config/momentum.cfg